iZotope Trash Box Modeler for Wwise

Introduction

The Trash Box Modeler effect for Wwise provides real models of cabinets, speakers, radios, and many other devices. In addition to recreating the natural sound of over 80 devices, each model is optimized to minimize CPU and memory cost while retaining the nuances of its source. This is perfect for creating a more authentic sound, or for adding creative effects to audio.
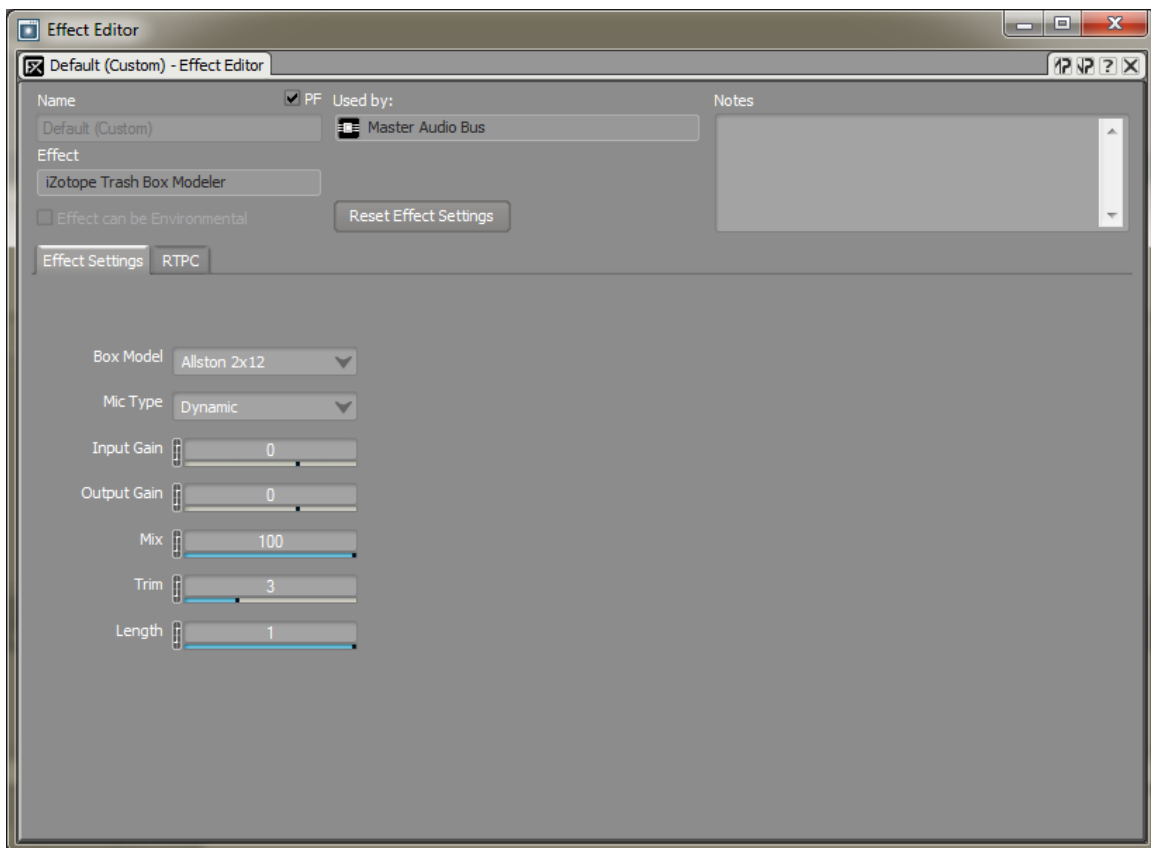

Figure 1 - Trash Box Modeler for Wwise

Box Models

Each box model was recorded with three different microphones: Dynamic, Condenser and Ribbon. Using the *Box Model* and *Mic Type* controls, it's possible to select the specific Mic and Model combination to get the perfect sound.
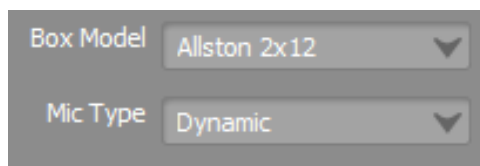
Figure 2 - Box Model and Mic Type

The Dynamic microphone should be suitable for most use cases, however, the Condenser mic can be used for a broader high frequency response while the Ribbon mic offers a warmer response.

Quality Settings

The Trash Box Modeler effect also provides *Trim* and *Length* controls, which affect the length of the impulse response and the accuracy of the model. *Trim* sets the relative decibel threshold of the impulse response with a lower *Trim* value resulting in a shorter impulse response. Setting the *Trim* to its maximum value will result in the entire length of the impulse response being used.

The *Length* control is similar to the *Trim* control where setting the *Length* value lower will reduce the length of the impulse response. However, the *Length* is independent of decibel level. (Note: Using a lower *Trim* or *Length* is one way to help lower CPU usage).
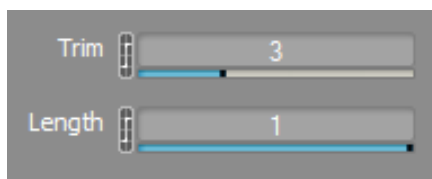
Figure 3 - Trim and Length

Interface Element	Description
Box Model	Selects the type of Box Model used. The Box Model choices are:

Allston 2x10	Rockport 2x10	Device – Plexi Tube
Boxboro Combo	Rockport Combo	Device – Ripped Cone
Boxboro Jazz	Roslindale 1x12	
Boxboro Vintage	Roslindale Bass	Device – Rubber Cone
Brighton 4x10	Rutland 1x12	
Brockton Modified	Sterling Boutique	Device – Rusty Bin
Brockton Stack	Sterling Combo	Device – Sheet Metal
Cambridge 1x12	SuperMart Special	
Cambridge Reissue	Waltham 2x12	Device – Snare
Canton Boutique	Waltham 4x10	Device – Spring Loaded Cone
Chelsea 2x10	Worcester Reissue	
Chelsea Classic	Worcester Stack	Device – Tin Can
Grafton Bass Cab	Worcester Standard	Device – Upright Piano
Grafton Bass Deluxe	Allston 2x12	
Gradton Standard	Oxford Classic	FX – Aluminum Dust
Hanover Bass	Worcester Bright	
Hanover Classic SE	Worcester Modified	FX – Area 51
Harvard Combo	Device – Cheap Radio	FX – Chipped Glass
Leicester Combo	Device – Kick and Bell	FX – Cleaner
Leicester Stack	Device – Light Bell	FX – Copper Buzz
Lincoln Standard	Device – Loose Snare	FX – Electric Gate
Lincoln Vintage	Device – Metal Barrel	FX – Electric Scratch
Mansfield Deluxe	Device –Metal Bowl	FX – Electric Shock
Mansfield Vintage	Device – Piano Cab and Sub	FX – Kicker
Northbridge 4x10	Device – Piano Cab	FX – Metal Swell
Northbridge 4x12	Device – Plastic Box	FX – Reverse Noise
Oakdale Bass		FX – Sweep
Oakdale Modified		FX – Sweeper
Oakdale Vintage		FX – Tin Gate
Oxford 2x10		
Princeton 2x12		

Mic Type	Selects the type of Microphone Model used to capture the output of the Box Model. The Microphone choices are: Dynamic Condenser Ribbon
Input Gain	Adjusts the Input Gain, which can be used to normalize input levels. Default value: 0 Range: -20 to 10 Units: dB
Output Gain	Controls the gain after audio has been processed through the Box Model. Default value: 0 Range: -20 to 10 Units: dB
Mix	Controls the Mix between the box modeled signal (100%) and the original unprocessed signal (0%) Default value: 100 Range: 0 to 100 Units: %
Trim	Shortens the length of the impulse, with a lower Trim value corresponding to more impulse trimming, and a higher Trim value being closer to the full length of the impulse. Based on impulse level. Default value: 3 Range: 0 to 10 Units: None
Length	Shortens the length of the impulse, with a lower Length value corresponding to a shorter impulse, and a higher Length value corresponding to a longer impulse. Similar to Trim, but independent of impulse level. Default value: 1 Range: 0.01 to 1 Units: None